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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re application of:

Sorrells *et al.*

Appl. No. 09/550,644

Filed: April 14, 2000

For: **Method and System for Down-
Converting an Electromagnetic Signal,
Transforms for Same, and Aperture
Relationships**

Art Unit: 2681

Examiner: Gelin, J.

Atty. Docket: 1744.0010009

Third Supplemental Information Disclosure Statement

Commissioner for Patents
Washington, D.C. 20231

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Technology Center 2800

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The reference numbering on the accompanying Form PTO-1449 for this Third Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Second Supplemental Information Disclosure Statement, filed August 9, 2002.

Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

Applicants provide the following comments regarding the documents:

Documents AL19, AM19 and AD50 were cited in an International Search Report in PCT Appl. No. PCT/US01/08969, filed March 22, 2001, entitled, "Integrated Frequency Translation and Selectivity with a Gain Control Functionality, and Applications Thereof," directed to related subject matter. Also cited in said Search Report were U.S. Patent Nos. 4,888,557 and 5,801,654 and PCT Publication Nos. WO 96/02977 and WO 96/39750, which were cited in Applicants' Information Disclosure Statement filed on September 14, 2001 in connection with the above-captioned application.

Document AJ20 was cited by an Examiner in co-pending Japanese Patent Application Serial No. 2000-577,764, filed June 21, 2000, entitled "Applications of Universal Frequency Translation.". Also cited by said Examiner was Japanese Patent Publication No. 58-133004, which was cited in Applicants' Supplemental Information Disclosure Statement filed on May 14, 2002 in connection with the above-captioned application.

Documents AK20, AL20, AJ21, AK21, AL21, AP56 and AQ56 were cited in an International Search Report in PCT Appl. No. PCT/US01/12086, filed April 13, 2001, entitled, "Frequency Converter," directed to related subject matter. Also cited in said International Search Report was U.S. Patent No. 5,844,449, which was cited in Applicants' Information Disclosure Statement filed on September 14, 2001 in connection with the above-captioned application.

Document AE50 was cited by an Examiner in co-pending U.S. Patent Application Serial No. 09/376,509, filed August 18, 1999, entitled "Method and System for Ensuring Reception of a Communications Signal," directed to related subject matter.

Documents AM21 and AJ22 were cited in by an Examiner in co-pending Japanese Patent Application No. 2000-577,765, filed June 21, 2000, entitled "Method and System for Ensuring Reception of a Communications Signal," directed to related subject matter. Also cited by said Examiner were Japanese Patent Publication Nos. 56-114451, 8-32556, 8-13924 and Miki, S. and Nagahama, R., *Modulation System II*, Common Edition 7, Kyoritsu Publishing Co., Ltd., pp. 146-154 (April 30, 1956), which were cited in Applicants' Supplemental Information Disclosure Statement filed on May 14, 2002 in connection with the above-captioned application.

The other documents in the PTO-1449 do not fall within the above categories.

It is noted that some of these documents could be classified in more than one of the above categories.

This statement should not be construed as a representation that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below.

- 1. This Information Disclosure Statement is being filed before the mailing of a first Office Action. No statement or fee is required.
- 2. This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection or Notice of Allowance.
 - a. I hereby state that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
37 C.F.R. § 1.97(e)(1).

- b. I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
 - c. Attached is our Check No. 32067 in the amount of \$ _____ in payment of the fee under 37 C.F.R. § 1.17(p).
- 3. This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. A separate Petition to the Group Director, requesting consideration of this Information Disclosure Statement, is concurrently submitted herewith, along with our Check No. _____ in the amount of \$ _____ in payment of the fee under 37 C.F.R. § 1.17(i).
- a. I hereby state that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
 - b. I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- 4. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance. 1138 OG 37, 38.

5. Concise explanations of the relevance of non-English language documents AJ20-AL20, AK21, AM21 and AJ22 appear below:

Document AJ20 (JP 60-130203) appears to describe a frequency converter. A copy of the English language translation of document AJ20 is enclosed as document AO56 on the attached PTO-1449.

Document AK20 (DE 196 27 640 A1) appears to describe a mixer. Document AK20 is a counterpart German application of U.S. Patent No. 5,680,078, which was cited in Applicants' Information Disclosure Statement filed on September 14, 2001 in connection with the above-captioned application.

Document AL20 (EP 0 087 336 A1) appears to describe a transistorized mixer for microwave transmitters. The granted version of document AL20 is cited as document AM20 (EP 0 087 336 B1) and contains an English-language version of the claims.

Document AK21 (FR 2 669 787 A1) appears to describe a symmetrical super high frequency mixer. A copy of the English-language abstract of document AK21 is enclosed as document AR56 on the attached PTO-1449.

Document AM21 (JP 61-30821) appears to describe a squelch device. A copy of the English-language abstract of document AM21 is enclosed as document AP57 on the attached PTO-1449.

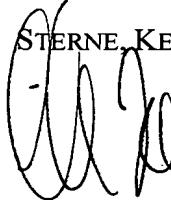
Document AJ22 (JP 5-327356) appears to describe a frequency converter. A copy of the English-language abstract of document AJ22 is enclosed as document AQ57 on the attached PTO-1449.

6. Copies of the documents were cited by or submitted to the Office in an IDS that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. _____, filed _____, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,


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December 9, 2002

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Technology Center 2000 Art Unit 2681

Commissioner for Patents
Washington, D.C. 20231

Re: U.S. Non-Provisional Utility Patent Application
Appl. No. 09/550,644; Filed: April 14, 2000
For: **Method and System for Down-Converting an Electromagnetic
Signal, Transforms for Same, and Aperture Relationships**
Inventors: Sorrells *et al.*
Our Ref: 1744.0010009

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Third Supplemental Information Disclosure Statement;
2. Form PTO-1449 listing and accompanied by twenty-one (21) documents; and
3. One return postcard.

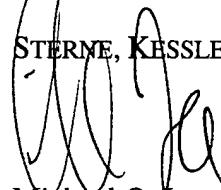
It is respectfully requested that the attached postcard be stamped with the date of filing of these documents and returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents
December 9, 2002
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.


Michael Q. Lee
Attorney for Applicants
Registration No. 35,239

Enclosures

MQL/VLB/sjc
::ODMA\MHODMA\SKGF_DC1;82106;1



FORM 14 <u>SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</u>		ATTY. DOCKET NO. 1744.0010009	APPLICATION NO. 09/550,644
		APPLICANT Sorrells et al.	
		FILING DATE April 14, 2000	GROUP 2681

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
AD50	5,633,815	05/1997	Young		RECEIVED		
AE50	3,246,084	04/1966	Kryter		DEC 10 2002		
					Technology Center 2600		

FOREIGN PATENT DOCUMENTS

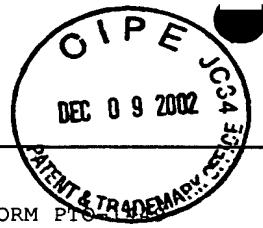
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
AL19	EP 0 254 844 A2	02/1988	EP	H03D	7/00		N/A
AM19	EP 0 632 577 A1	01/1995	EP	H03D	7/16		N/A

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AO	56	Translation of Japanese Patent Publication No. 60-130203, 3 pages (July 11, 1985- Date of publication of application).	
	AP	56	Razavi, B., "A 900-MHz/1.8-Ghz CMOS Transmitter for Dual-Band Applications," <i>Symposium on VLSI Circuits Digest of Technical Papers</i> , IEEE, pp. 128-131 (1998).	
	AQ	56	Ritter, G.M., "SDA, A New Solution for Transceivers," <i>16th European Microwave Conference</i> , Microwave Exhibitions and Publishers, pp. 729-733 (September 8, 1986).	
	AR	56	DIALOG File 351 (Derwent WPI) English Language Patent Abstract for FR 2 669 787, 1 page (May 29, 1992- Date of publication of application).	

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



 FORM PTO-891	ATTY. DOCKET NO. 1744.0010009	APPLICATION NO. 09/550,644
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT		
APPLICANT Sorrells et al.		
FILING DATE April 14, 2000		
GROUP 2681		

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FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AJ20	JP 60-130203	07/1985	JP	H03D	7/00	Yes (Doc. AO56)
	AK20	DE 196 27 640 A1	01/1997	DE	H03D	7/12	No
	AL20	EP 0 087 336 A1	08/1983	EP	H03D	7/12	No
	AM20	EP 0 087 336 B1	07/1986	EP	H03D	7/12	No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AN	<u>57</u>	Akos, D.M. et al., "Direct Bandpass Sampling of Multiple Distinct RF Signals," <i>IEEE Transactions on Communications</i> , IEEE, Vol. 47, No. 7, pp. 983-988 (July 1999).
	AO	<u>57</u>	Patel, M. et al., "Bandpass Sampling for Software Radio Receivers, and the Effect of Oversampling on Aperture Jitter," <i>VTC 2002</i> , IEEE, pp. 1901-1905 (2002).
	AP	<u>57</u>	English-language Abstract of Japanese Patent Publication No. 61-030821, 1 Page (February 13, 1986- Date of publication of application).
	AQ	<u>57</u>	English-language Abstract of Japanese Patent Publication No. 05-327356, 1 Page (December 10, 1993 - Date of publication of application).

EXAMINER _____ **DATE CONSIDERED** _____

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



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Page 3 of 4

 FORM PTO-9	ATTY. DOCKET NO. 1744.0010009	APPLICATION NO. 09/550,644
APPLICANT Sorrells et al.		
FILING DATE April 14, 2000		
GROUP 2681		

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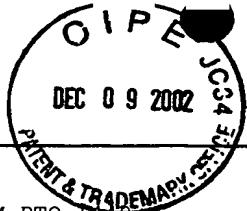
FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AJ21	EP 0 789 449 A2	08/1997	EP	H03D	7/12	N/A
	AK21	FR 2 669 787 A1	05/1992	FR	H03D	7/14	No
*	AL21	GB 2 324 919 A	11/1998	GB	H03D	7/18	N/A
*	AM21	JP 61-30821	02/1986	JP	H04B	1/10	No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

EXAMINER _____ **DATE CONSIDERED** _____

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